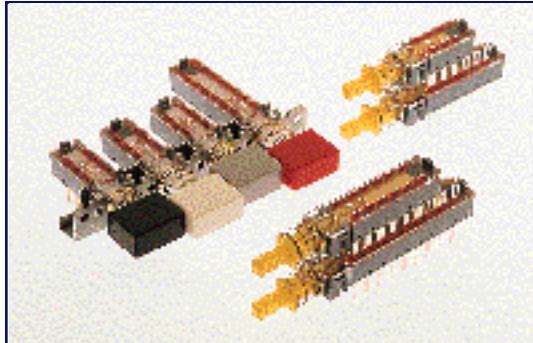


PUSHBUTTON SWITCHES

SERIES TA/LT



TA/LT Series push button switches offer an "ultra-lite" alternative to design engineers working in a variety of applications. Available features include:

- Spring loaded, wiping contacts for smooth, silent actuation stroke and excellent reliability
- Up to 16 poles per module
- Mounting chassis available.
- Interlocked assemblies up to 20 stations
- Optional terminal length
- Snap-on buttons
- Solder lugs on top for hand wiring; PC at bottom for flow soldering
- Switch plunger with sliding contacts can be removed from the front without disturbing electrical connections.
- Fixed terminals are epoxied and "staked" in position, providing an extra seal to help prevent wicking of solder or flux x.

SPECIFICATIONS

RATING: 0.5 A@ 100 VAC, 0.2A@ 250 VAC, 1A@ 25 VDC

CONTACT RESISTANCE: 20 m typical

INSULATION RESISTANCE: Adjacent Contacts — 2×10^{12} min.

(Dry Condition)

DIELECTRIC STRENGTH: 1,500 V RMS min.

LIFE CYCLE: 100,000 cycles min.

OPERATING TEMPERATURE RANGE: -20° to +70°C

FUNCTIONS AVAILABLE:

GR = Interlocking

O A = Momentary

EE = Latching

TA = Standard Operating Force (See Next Page)

LT = Light Touch Operating Force (See Next Page)

S = Shorting (MBB)

N = Non-Shorting (BBM)



MATERIALS

HOUSING: Polycarbonate (UL94-HB) Std.

Valox (UL94-VO)

PLUNGER: Duracan (UL94-HB) Std.

Valox (UL94-VO)

TERMINALBOARD: Polycarbonate (UL94-HB) Std.

MOVING CONTACTS: Silver plated copper alloy

Gold plate over nickel plated copper alloy

FIXED CONTACTS: Copper alloy with silver plate over nickel plate

TERMINALSEAL: High strength bonding red resin

RELEASE BAR: Steel / zinc plated

CHASSIS: Steel / Nickel plated or steel/zinc plated

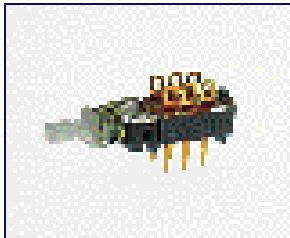
HOW TO ORDER INDIVIDUAL MODULES

Series (Operating Force)	Pole	Mechanical Configuration	Termination	Contact Material	Housing/Plunger Material	Timing	Cap	Cap Color
TA	2U	EE=	A	AG=	P=	N=	TAA ¹	Blk
LT	4U	Latching	B	Silver	UL94HB	BBM	TAB ²	Wht
	6U	OA=	C	AU=	V=	S=	TAC ¹	Gry
	8U	Momentary	E	Gold	UL94VO	MBB	TAD ¹	Red
	10U		F				TAE ¹	Blu
	16U						TAG ²	Chr
*Retentive (Snap In) pins available; please contact E-Switch for Specifications.								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only ⁴Blk, Gry, Wht Only ⁵Blk & Red Only</div>								
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: auto;">¹Blk, Gry, Wht, Red Only ²Blk, Gry, Wht, Red, Chr Only 3Blk & Gry Only <</div>								

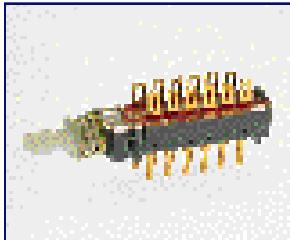
PUSHBUTTON SWITCHES

SERIES TA/LT

TA2UEE A

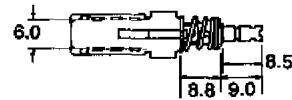


TA4UEE A

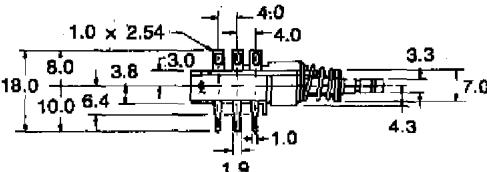


MODULE SCHEMATICS

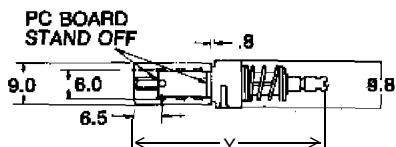
TOP



SIDE



BOTTOM



CIRCUIT OPTIONS

2U = DPDT

8U = 8PDT

4U = 4PDT

10U = 10PDT

6U = 6PDT

16U = 16PDT

TRAVEL

4.8

TRAVEL TO LOCK

3.3

TOLERANCE

$\pm 0.2\text{MM}$

POLE DIMENSIONS

Y	
2PDT	42.15
4PDT	54.15
6PDT	66.15
8PDT	78.15
10PDT	90.15
16PDT	126.15

OPERATING FORCE OPTIONS

(TA) STANDARD OPERATING FORCE

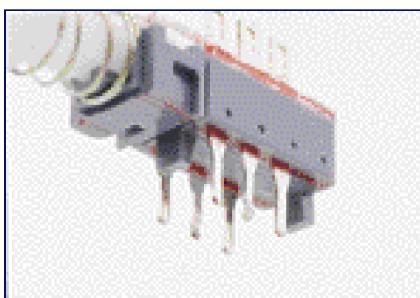
2PDT 700 grams
4PDT 700 grams
6PDT 1000 grams
8PDT 1000 grams
10PDT 1200 grams
16PDT 1200 grams

(LT) LIGHT TOUCH OPERATING FORCE

2PDT 250 grams
4PDT 400 grams
6PDT 650 grams

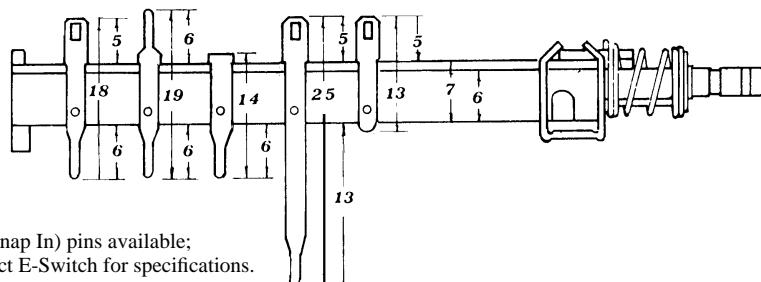
TERMINATION OPTIONS

RETENTIVE PIN OPTION



*Retentive (Snap In) pins available;
please contact E-Switch for specifications.

A B C E F



PLATING, MATERIAL & TIMING OPTIONS

PLATING

AG = Silver
AU = Gold

MATERIAL

P = Polycarbonate UL94HB
V = Valox UL94VO

TIMING

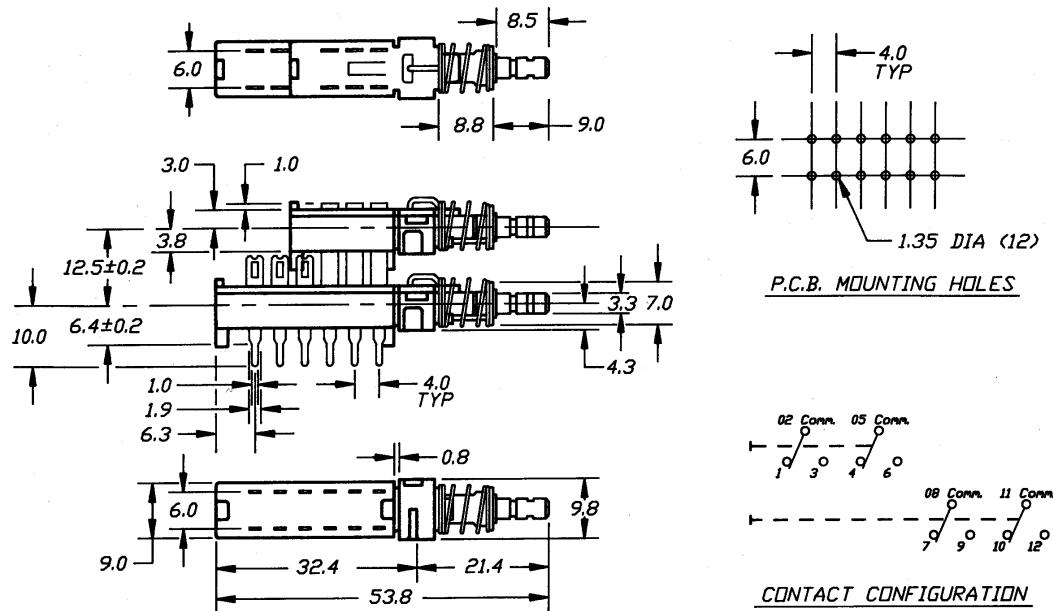
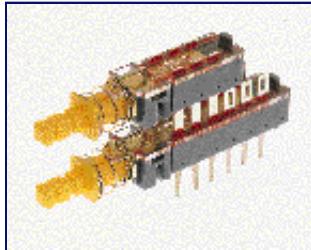
N = (BBM) Non-Shorting
S = (MBB) Shorting

PIGGYBACK PUSHBUTTON SWITCHES

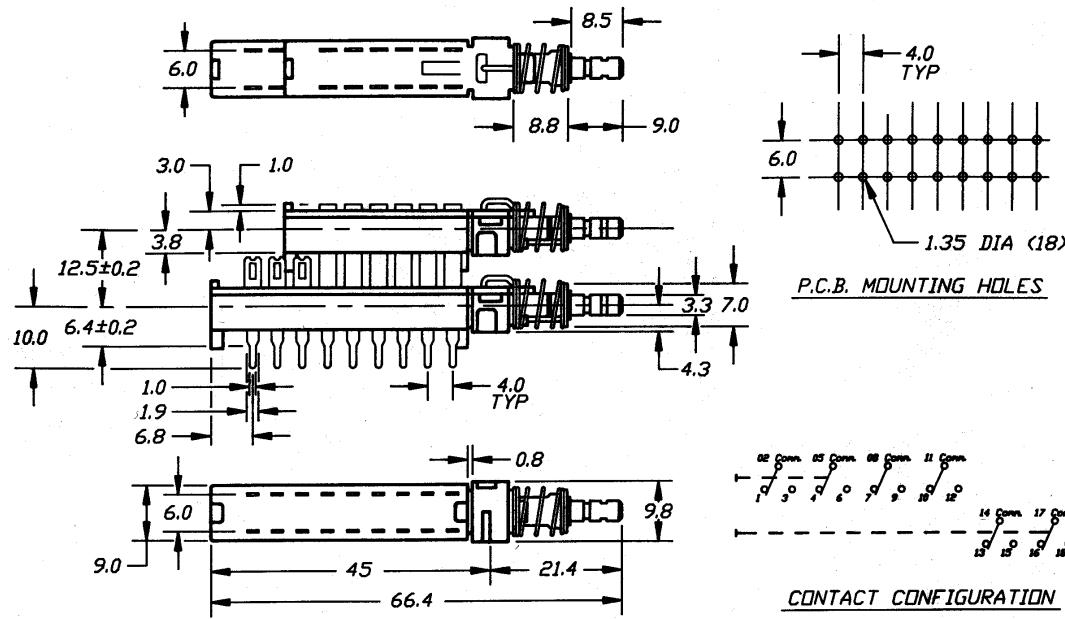
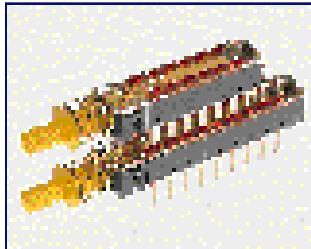
SERIES TA/LT

LIGHT TOUCH PIGGYBACK

A020901



A020903



The light touch piggyback is often used where space is a premium or where 2 vertical push buttons are required. The top switch mechanism controls the front terminals. The bottom switch mechanism controls the back terminals.

HOW TO ORDER LIGHT TOUCH PIGGYBACK MODULES

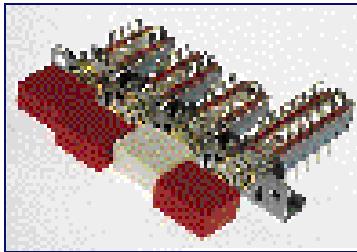
To order, simply give model number:

MODEL NUMBER:
A020901
A020903

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

CHASSIS & ASSEMBLY

ASSEMBLY CHASSIS



THE ABOVE EXAMPLE SHOWS:

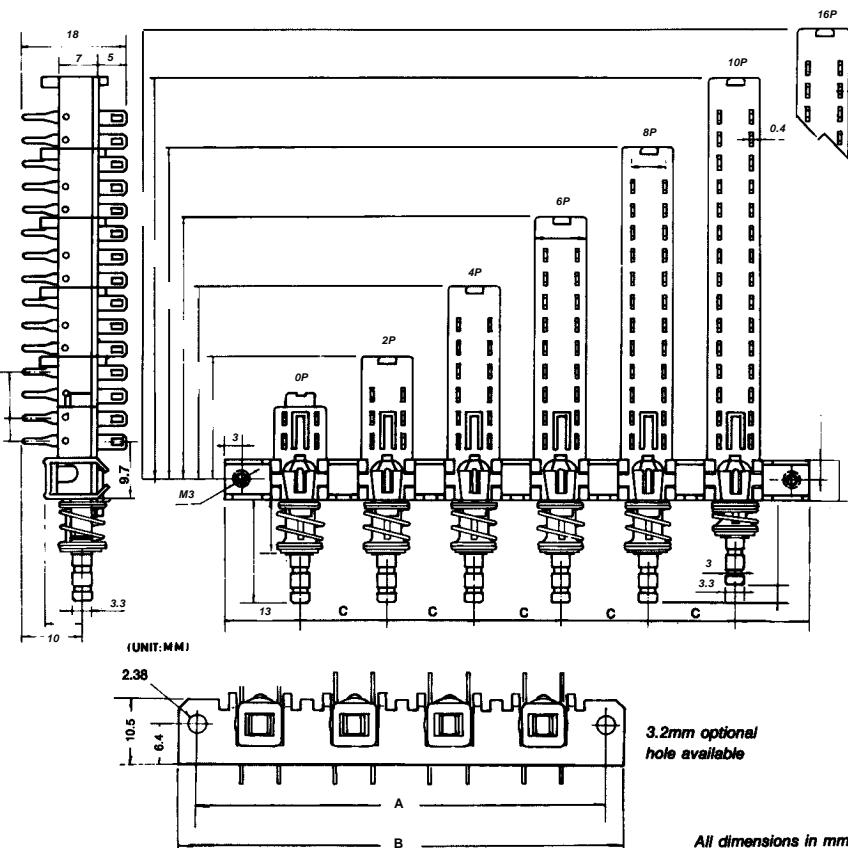
- A 4 station TAs switch
- 15mm spacing
- All buttons TAB/RED except station 3 which is TAB/WHT
- First 3 stations are 2 pole switches, interlocked
- Station 4 is 4 pole momentary switch
- All switches have standard terminal type A

WHEN ORDERING ASSEMBLY:

(See Next Page For Ordering Procedure)

1. When applicable, state whether buttons are to be mounted horizontally or vertically.
2. Please state if buttons are to be shipped bulk.
3. State requirement for cut mounting tabs on chassis in exception area.
4. Inquire about non-standard mounting holes on chassis ends.

REFERENCE DIAGRAMS



STANDARD CHASSIS DIMENSIONS (refer to above schematics)

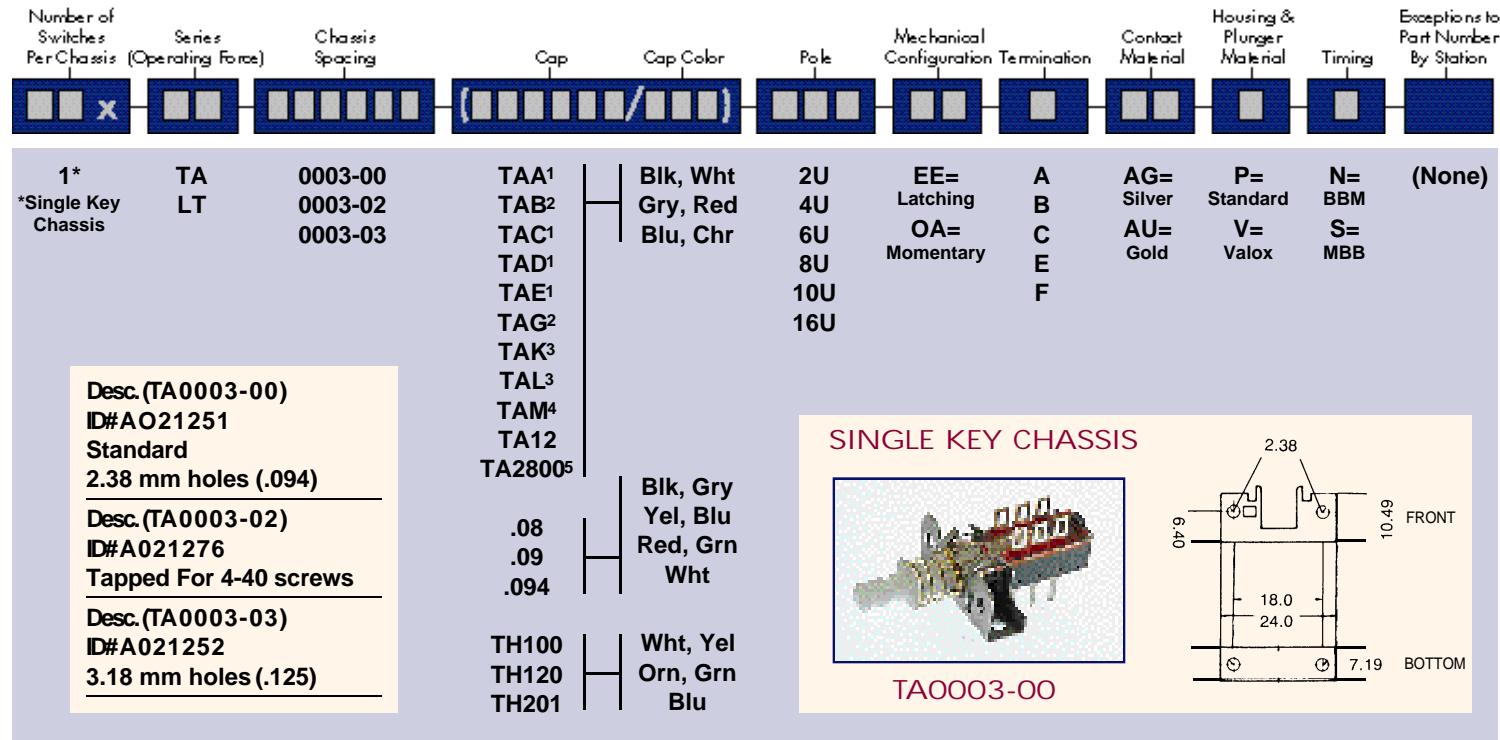
SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Number of Stations	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
'C'Dim.	'A'Dim.	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
10mm	'B'Dim.	36	46	56	66	76	86	96	106	116	126	136	146	156	166	176	186	196	206
'C'Dim.	'A'Dim.	32.5	45	57.5	70	82.5	95	107.5	120	132.5	145	157.5	170	182.5	195	207.5	220	232.5	245
12.5mm	'B'Dim.	38.5	51	63.5	76	88.5	101	113.5	126	138.5	151	163.5	176	188.5	201	213.5	226	238.5	251
'C'Dim.	'A'Dim.	35	50	65	80	95	110	125	140	155	170	185	200	215	230	245	260	275	290
15mm	'B'Dim.	41	56	71	86	101	116	131	146	161	176	191	206	221	236	251	266	281	296
'C'Dim.	'A'Dim.	37.5	55	72.5	90	107.5	125	142.5	160	177.5	195	212.5	230	247.5	265	282.5	300	317.5	335
17.5mm	'B'Dim.	43.5	61	78.5	96	113.5	131	148.5	166	183.5	201	218.5	236	253.5	271	288.5	306	323.5	341
'C'Dim.	'A'Dim.	40	60	80	100	120	140	160	180	200	220	240	260	280	300	320	340	360	380
20mm	'B'Dim.	46	66	86	106	126	146	166	186	206	226	246	266	286	306	326	346	366	386
																		400	

PUSHBUTTON ASSEMBLIES

SERIES TA/LT

HOW TO ORDER SINGLE STATION ASSEMBLIES



HOW TO ORDER MULTISTATION ASSEMBLIES

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Example:

12x → TA → 15 → (TAB/Red) → 2U → EE → A → AG → P → N